--17. A method for inhibiting tissue growth comprising administering to said tissue a composition comprising an angiogenesis-inhibiting amount of an $\alpha_v\beta_3$ antagonist.

18. The method of claim 17 wherein said tissue is human.

19. The method of claim 17 wherein said tissue is a solid tumor tissue.

20. The method of claim 19 wherein said solid tumor tissue is a carcinoma.

21. The method of claim 19 wherein said solid tumor tissue is bladder, breast, colon or lung.

22. The method of claim 19 wherein said administering is conducted in conjunction with chemotherapy.

23. The method of claim 19 wherein said administering is conducted following surgery to remove a solid tumor as a prophylaxis against metastases.

24. The method of claim 17 wherein said tissue is an inflamed tissue.

25. The method of claim 24 wherein said inflamed tissue is arthritic.

26. The method of claim 25 wherein said arthritic tissue is present in a mammal with rheumatoid arthritis.

27. The method of claim 17 wherein said tissue is retinal tissue of a patient with diabetic retinopathy.

28. The method of claim 17 wherein administering comprises intravenous, intrasynovial, intramuscular, oral, subcutaneous or transdermal administration.

RECEIVED
TECH CENTER 1600/2900
98 OCT 20 AM 11:1

29. The method of claim 17 wherein said administering comprises a single dose intravenously.

30. The method of claim 17 wherein said administering comprises peristaltic administration.

31. The method of claim 17 wherein said angiogenesis-inhibiting amount is from about 0.1 mg/kg to about 300 mg/kg body weight.

32. The method of claim 17 wherein said $\alpha_v\beta_3$ antagonist preferentially inhibits fibrinogen binding to $\alpha_v\beta_3$ compared to fibrinogen binding to $\alpha_{IIb}\beta_3$.

33. The method of claim 17 wherein said $\alpha_v\beta_3$ antagonist is an antibody.

34. The method of claim 33 wherein said antibody is a monoclonal antibody immunospecific for $\alpha_v\beta_3$.

35. The method of claim 34 wherein said monoclonal antibody specifically binds $\alpha_v\beta_3$ complex.

36. The method of claim 34 wherein said monoclonal antibody is present as an antibody fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and F(v).

37. The method of claim 34 wherein said monoclonal antibody has the immunoreaction characteristics of the monoclonal antibody LM609 having ATCC accession number HB 9537.

38. The method of claim 34 wherein said tissue is human and said antibody is humanized.

39. The method of claim 17 wherein said $\alpha_v\beta_3$ antagonist is an RGD-containing polypeptide.

40. The method of claim 39 wherein said polypeptide is selected from the group consisting of c-(GrGDFV) (SEQ ID NO 4), c-(RGDfV) (SEQ ID NO 5), c-(RGDFv) (SEQ ID NO 7), and YTAECKPQVTRGDVF (SEQ ID NO 8), and a salt thereof.

41. The method of claim 39 wherein said salt is hydrochloride or trifluoroacetate.

42. The method of claim 17 wherein said $\alpha_v\beta_3$ antagonist is a cyclic peptide.

43. A method for inducing solid tumor tissue regression in a patient comprising administering to said patient a composition comprising a therapeutically effective amount of an $\alpha_v\beta_3$ antagonist.

44. The method of claim 43 wherein said tissue is human.

45. The method of claim 43 wherein said solid tumor tissue is a carcinoma.

46. The method of claim 43 wherein said solid tumor tissue is bladder, breast, colon or lung.

47. The method of claim 43 wherein said administering is conducted in conjunction with chemotherapy.

48. The method of claim 43 wherein said administering is conducted following surgery to remove a solid tumor as a prophylaxis against metastases.

49. The method of claim 43 wherein administering comprises intravenous, intrasynovial, intramuscular, oral, subcutaneous or transdermal administration.

50. The method of claim 43 wherein said administering comprises a single dose intravenously.

51. The method of claim 43 wherein said administering comprises peristaltic administration.

52. The method of claim 43 wherein said angiogenesis-inhibiting amount is from about 0.1 mg/kg to about 300 mg/kg body weight.

53. The method of claim 43 wherein said $\alpha_v\beta_3$ antagonist preferentially inhibits fibrinogen binding to $\alpha_v\beta_3$ compared to fibrinogen binding to $\alpha_{IIb}\beta_3$.

54. The method of claim 43 wherein said $\alpha_v\beta_3$ antagonist is an antibody.

55. The method of claim 54 wherein said antibody is a monoclonal antibody immunospecific for $\alpha_v\beta_3$.

56. The method of claim 55 wherein said monoclonal antibody specifically binds $\alpha_v\beta_3$ complex.

57. The method of claim 55 wherein said monoclonal antibody is present as an antibody fragment selected from the group consisting of Fab, Fab', $F(ab)_2$ and F(v).

58. The method of claim 55 wherein said monoclonal antibody has the immunoreaction characteristics of the monoclonal antibody LM609 having ATCC accession number HB 9537.

59. The method of claim 55 wherein said tissue is human and said antibody is humanized.

60. The method of claim 43 wherein said $\alpha_v\beta_3$ antagonist is an RGD-containing polypeptide.

61. The method of claim 43 wherein said polypeptide is selected from the group consisting of c-(GrGDFV) (SEQ ID NO 4),

c-(RGDfV) (SEQ ID NO 5), c-(RGDFv) (SEQ ID NO 7), and YTAECKPQVTRGDVF (SEQ ID NO 8), and a salt thereof.

62. The method of claim 61 wherein said salt is hydrochloride or trifluoroacetate.

63. The method of claim 43 wherein said $\alpha_v\beta_3$ antagonist is a cyclic peptide.

64. A method for inhibiting solid tumor tissue growth in a patient comprising administering to said patient a composition comprising a therapeutically effective amount of an $\alpha_v\beta_3$ antagonist.

65. The method of claim 64 wherein said tissue is human.

66. The method of claim 64 wherein said solid tumor tissue is a carcinoma.

67. The method of claim 64 wherein said solid tumor tissue is bladder, breast, colon or lung.

68. The method of claim 64 wherein said administering is conducted in conjunction with chemotherapy.

69. The method of claim 64 wherein said administering is conducted following surgery to remove a solid tumor as a prophylaxis against metastases.

70. The method of claim 64 wherein administering comprises intravenous, intrasynovial, intramuscular, oral, subcutaneous or transdermal administration.

71. The method of claim 64 wherein said administering comprises a single dose intravenously.

72. The method of claim 64 wherein said administering comprises peristaltic administration.

73. The method of claim 64 wherein said angiogenesis-inhibiting amount is from about 0.1 mg/kg to about 300 mg/kg body weight.

74. The method of claim 64 wherein said $\alpha_v\beta_3$ antagonist preferentially inhibits fibrinogen binding to $\alpha_v\beta_3$ compared to fibrinogen binding to $\alpha_{IIb}\beta_3$.

75. The method of claim 64 wherein said $\alpha_v\beta_3$ antagonist is an antibody.

76. The method of claim 75 wherein said antibody is a monoclonal antibody immunospecific for $\alpha_v\beta_3$.

77. The method of claim 76 wherein said monoclonal antibody specifically binds $\alpha_v\beta_3$ complex.

78. The method of claim 76 wherein said monoclonal antibody is present as an antibody fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and F(v).

79. The method of claim 76 wherein said monoclonal antibody has the immunoreaction characteristics of the monoclonal antibody LM609 having ATCC accession number HB 9537.

80. The method of claim 76 wherein said tissue is human and said antibody is humanized.

81. The method of claim 64 wherein said $\alpha_v\beta_3$ antagonist is an RGD-containing polypeptide.

82. The method of claim 81 wherein said polypeptide is selected from the group consisting of c-(GrGDFV) (SEQ ID NO 4), c-(RGDfV) (SEQ ID NO 5), c-(RGDFv) (SEQ ID NO 7), and YTAECKPQVTRGDVF (SEQ ID NO 8), and a salt thereof.

83. The method of claim 82 wherein said salt is hydrochloride or trifluoroacetate.

84. The method of claim 64 wherein said $\alpha_v\beta_3$ antagonist is a cyclic peptide.

85. A method for inhibiting angiogenesis in a carcinoma in a patient comprising administering to said patient a composition comprising an angiogenesis-inhibiting amount of an $\alpha_v\beta_3$ antagonist.

86. The method of claim 85 wherein said carcinoma is human.

87. The method of claim 85 wherein said solid carcinoma is bladder, breast, colon or lung.

88. The method of claim 85 wherein said administering is conducted in conjunction with chemotherapy.

89. The method of claim 85 wherein said administering is conducted following surgery to remove a solid tumor as a prophylaxis against metastases.

90. The method of claim 85 wherein administering comprises intravenous, intrasynovial, intramuscular, oral, subcutaneous or transdermal administration.

91. The method of claim 85 wherein said administering comprises a single dose intravenously.

92. The method of claim 85 wherein said administering comprises peristaltic administration.

93. The method of claim 85 wherein said angiogenesis-inhibiting amount is from about 0.1 mg/kg to about 300 mg/kg body weight.

94. The method of claim 85 wherein said $\alpha_v\beta_3$ antagonist preferentially inhibits fibrinogen binding to $\alpha_v\beta_3$ compared to fibrinogen binding to $\alpha_{IIb}\beta_3$.

95. The method of claim 85 wherein said $\alpha_v\beta_3$ antagonist is an antibody.

96. The method of claim 95 wherein said antibody is a monoclonal antibody immunospecific for $\alpha_v\beta_3$.

97. The method of claim 96 wherein said monoclonal antibody specifically binds $\alpha_v\beta_3$ complex.

98. The method of claim 96 wherein said monoclonal antibody is present as an antibody fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and F(v).

99. The method of claim 96 wherein said monoclonal antibody has the immunoreaction characteristics of the monoclonal antibody LM609 having ATCC accession number HB 9537.

100. The method of claim 85 wherein said tissue is human and said antibody is humanized.

101. The method of claim 85 wherein said $\alpha_v\beta_3$ antagonist is an RGD-containing polypeptide.

102. The method of claim 101 wherein said polypeptide is selected from the group consisting of c-(GrGDFV) (SEQ ID NO 4), c-(RGDfV) (SEQ ID NO 5), c-(RGDFv) (SEQ ID NO 7), and YTAECKPQVTRGDVF (SEQ ID NO 8), and a salt thereof.

103. The method of claim 102 wherein said salt is hydrochloride or trifluoroacetate.

104. The method of claim 85 wherein said $\alpha_v\beta_3$ antagonist is a cyclic peptide.

105. A method for treating a patient with inflamed tissue comprising administering to said patient a composition comprising a therapeutically effective amount of an $\alpha_v\beta_3$ antagonist.

106. The method of claim 105 wherein said tissue is human.

107. The method of claim 105 wherein said inflamed tissue is arthritic.

108. The method of claim 105 wherein said arthritic tissue is present in a mammal with rheumatoid arthritis.

109. The method of claim 105 wherein said tissue is retinal tissue of a patient with diabetic retinopathy.

110. The method of claim 105 wherein administering comprises intravenous, intrasynovial, intramuscular, oral, subcutaneous or transdermal administration.

111. The method of claim 105 wherein said administering comprises a single dose intravenously.

112. The method of claim 105 wherein said administering comprises peristaltic administration.

113. The method of claim 105 wherein said angiogenesis-inhibiting amount is from about 0.1 mg/kg to about 300 mg/kg body weight.

114. The method of claim 105 wherein said $\alpha_v\beta_3$ antagonist preferentially inhibits fibrinogen binding to $\alpha_v\beta_3$ compared to fibrinogen binding to $\alpha_{IIb}\beta_3$.

115. The method of claim 105 wherein said $\alpha_v\beta_3$ antagonist is an antibody.

116. The method of claim 115 wherein said antibody is a monoclonal antibody immunospecific for $\alpha_v\beta_3$.

117. The method of claim 116 wherein said monoclonal antibody specifically binds $\alpha_v\beta_3$ complex.

118. The method of claim 116 wherein said monoclonal antibody is present as an antibody fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and F(v).

119. The method of claim 116 wherein said monoclonal antibody has the immunoreaction characteristics of the monoclonal antibody LM609 having ATCC accession number HB 9537.

120. The method of claim 116 wherein said tissue is human and said antibody is humanized.

121. The method of claim 105 wherein said $\alpha_v\beta_3$ antagonist is an RGD-containing polypeptide.

122. The method of claim 121 wherein said polypeptide is selected from the group consisting of c-(GrGDFV) (SEQ ID NO 4), c-(RGDfV) (SEQ ID NO 5), c-(RGDFv) (SEQ ID NO 7), and YTAECKPQVTRGDVF (SEQ ID NO 8), and a salt thereof.

123. The method of claim 122 wherein said salt is hydrochloride or trifluoroacetate.

124. The method of claim 105 wherein said $\alpha_v\beta_3$ antagonist is a cyclic peptide.

125. A method for treating a patient in which neovascularization is occurring in retinal tissue comprising administering to said patient a composition comprising a neovascularization-inhibiting amount of an $\alpha_v\beta_3$ antagonist.

126. The method of claim 125 wherein said tissue is human.

127. The method of claim 125 wherein said tissue is an inflamed tissue.

128. The method of claim 125 wherein said tissue is retinal tissue of a patient with diabetic retinopathy.

129. The method of claim 125 wherein administering comprises intravenous, intrasynovial, intramuscular, oral, subcutaneous or transdermal administration.

130. The method of claim 125 wherein said administering comprises a single dose intravenously.

131. The method of claim 125 wherein said administering comprises peristaltic administration.

132. The method of claim 125 wherein said angiogenesis-inhibiting amount is from about 0.1 mg/kg to about 300 mg/kg body weight.

133. The method of claim 125 wherein said $\alpha_v\beta_3$ antagonist preferentially inhibits fibrinogen binding to $\alpha_v\beta_3$ compared to fibrinogen binding to $\alpha_{IIb}\beta_3$.

134. The method of claim 125 wherein said $\alpha_v\beta_3$ antagonist is an antibody.

135. The method of claim 134 wherein said antibody is a monoclonal antibody immunospecific for $\alpha_v\beta_3$.

136. The method of claim 135 wherein said monoclonal antibody specifically binds $\alpha_v\beta_3$ complex.

137. The method of claim 134 wherein said monoclonal antibody is present as an antibody fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and F(v).

138. The method of claim 134 wherein said monoclonal antibody has the immunoreaction characteristics of the monoclonal antibody LM609 having ATCC accession number HB 9537.

139. The method of claim 134 wherein said tissue is human and said antibody is humanized.

140. The method of claim 125 wherein said $\alpha_v\beta_3$ antagonist is an RGD-containing polypeptide.

141. The method of claim 140 wherein said polypeptide is selected from the group consisting of c-(GrGDFV) (SEQ ID NO 4), c-(RGDfV) (SEQ ID NO 5), c-(RGDFv) (SEQ ID NO 7), and YTAECKPQVTRGDVF (SEQ ID NO 8), and a salt thereof.

142. The method of claim 141 wherein said salt is hydrochloride or trifluoroacetate.

143. The method of claim 125 wherein said $\alpha_v\beta_3$ antagonist is a cyclic peptide.

144. A method for reducing blood supply to a tissue in a patient comprising administering to said patient a composition comprising a therapeutically effective amount of an $\alpha_v\beta_3$ antagonist.

145. The method of claim 144 wherein said tissue is human.

146. The method of claim 144 wherein said tissue is a solid tumor tissue.

147. The method of claim 146 wherein said solid tumor tissue is a carcinoma.

148. The method of claim 146 wherein said solid tumor tissue is bladder, breast, colon or lung.

149. The method of claim 144 wherein said administering is conducted in conjunction with chemotherapy.

150. The method of claim 144 wherein said administering is conducted following surgery to remove a solid tumor as a prophylaxis against metastases.

151. The method of claim 144 wherein said tissue is an inflamed tissue.

152. The method of claim 151 wherein said inflamed tissue is arthritic.

153. The method of claim 152 wherein said arthritic tissue is present in a mammal with rheumatoid arthritis.

154. The method of claim 144 wherein said tissue is retinal tissue of a patient with diabetic retinopathy.

155. The method of claim 144 wherein administering comprises intravenous, intrasynovial, intramuscular, oral, subcutaneous or transdermal administration.

156. The method of claim 144 wherein said administering comprises a single dose intravenously.

157. The method of claim 144 wherein said administering comprises peristaltic administration.

158. The method of claim 144 wherein said angiogenesis-inhibiting amount is from about 0.1 mg/kg to about 300 mg/kg body weight.

159. The method of claim 144 wherein said $\alpha_v\beta_3$ antagonist preferentially inhibits fibrinogen binding to $\alpha_v\beta_3$ compared to fibrinogen binding to $\alpha_{IIb}\beta_3$.

160. The method of claim 144 wherein said $\alpha_v\beta_3$ antagonist is an antibody.

161. The method of claim 160 wherein said antibody is a monoclonal antibody immunospecific for $\alpha_v\beta_3$.

162. The method of claim 161 wherein said monoclonal antibody specifically binds $\alpha_v\beta_3$ complex.

163. The method of claim 161 wherein said monoclonal antibody is present as an antibody fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and F(v).

164. The method of claim 161 wherein said monoclonal antibody has the immunoreaction characteristics of the monoclonal antibody LM609 having ATCC accession number HB 9537.

165. The method of claim 161 wherein said tissue is human and said antibody is humanized.

166. The method of claim 144 wherein said $\alpha_v\beta_3$ antagonist is an RGD-containing polypeptide.

167. The method of claim 166 wherein said polypeptide is selected from the group consisting of c-(GrGDFV) (SEQ ID NO 4), c-(RGDfV) (SEQ ID NO 5), c-(RGDFv) (SEQ ID NO 7), and YTAECKPQVTRGDVF (SEQ ID NO 8), and a salt thereof.

168. The method of claim 167 wherein said salt is hydrochloride or trifluoroacetate.

169. The method of claim 144 wherein said $\alpha_v\beta_3$ antagonist is a cyclic peptide.

170. A method for inhibiting angiogenesis in a carcinoma in a patient comprising administering to said patient a composition comprising an angiogenesis-inhibiting amount of a humanized anti-$\alpha_v\beta_3$ monoclonal antibody having the immunoreaction